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Thomas W. Adams

(Type or print name of person faxing paper)

Date: September 17, 2002

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8/6/02  
9/19/02

MCGEP0179US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Dickson L. Whitney, Jr., et al.

Art Unit: 1746

Serial No: 09/628,036

Examiner: Gentle E. Winter

Filed: July 27, 2000

For: **IMPROVED ADHESION OF POLYMERIC MATERIALS TO METAL SURFACES**SUPPLEMENTAL REPLY TO OFFICE ACTION MAILED APRIL 4, 2002

Box NON-FEE AMENDMENT  
Commissioner for Patents  
Washington, D.C. 20231

Sir:

This paper is responsive to the Office Action mailed April 4, 2002 for which a first Reply was filed on July 2, 2002. The present paper is a Supplemental Reply, based on telephone interviews between the undersigned attorney and the Examiner in charge of this application. Entry of the amendments and allowance of the claims are respectfully requested.

Docket No. MC GEP0179US

Serial No. 09/628,036

**AMENDMENT****In the Claims:****Please amend claims 1, 3 and 43-52 to read as follows:**

1. (Twice Amended) A process for treating a metal substrate to improve adhesion of polymeric materials thereto, comprising the steps of

intergranular etching a surface of the metal substrate; and

applying an immersion plated metal to the intergranular etched surface by immersing the surface in an immersion plating composition comprising one or more plating metals selected from tin, silver, bismuth, copper, nickel, lead, zinc, indium, palladium, platinum, gold, cadmium, ruthenium, cobalt, gallium and germanium,

wherein the step of intergranular etching is carried out with an intergranular etching composition comprising

(a) hydrogen peroxide;

(b) at least one acid, wherein the at least one acid comprises sulfuric acid or a sulfonic acid;

(c) at least one nitrogen-containing, five-membered heterocyclic compound which does not contain any sulphur, selenium or tellurium atom in the heterocycle; and

(d) at least one adhesive compound selected from sulfinic acids, seleninic acids, tellurinic acids, heterocyclic compounds containing at least one sulfur, selenium and/or tellurium atom in the heterocycle, and sulfonium, selenonium and telluronium salts having the general formula (A),

